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LL	000000	GGGGGGGG	EEEEEEEEE	VV	VV	EEEEEEEEE	NN	NN	TTTTTTTT	
LL	000000	GGGGGGGG	EEEEEEEEE	VV	VV	EEEEEEEEE	NN	NN	TTTTTTTT	
LL	00	00	GG	EE	VV	EE	NN	NN	TT	
LL	00	00	GG	EE	VV	EE	NN	NN	TT	
LL	00	00	GG	EE	VV	EE	NNNN	NN	TT	
LL	00	00	GG	EE	VV	EE	NNNN	NN	TT	
LL	00	00	GG	EEEEEEE	VV	VV	EEEEEEE	NN	NN	TT
LL	00	00	GG	EEEEEEE	VV	VV	EEEEEEE	NN	NN	TT
LL	00	00	GG	GGGGGG	EE	VV	EE	NN	NNNN	TT
LL	00	00	GG	GGGGGG	EE	VV	EE	NN	NNNN	TT
LL	00	00	GG	GG	EE	VV	EE	NN	NN	TT
LL	00	00	GG	GG	EE	VV	EE	NN	NN	TT
LLLLLLLLLL	000000	GGGGGG	EEEEEEEEE	VV	VV	EEEEEEEEE	NN	NN	TT	
LLLLLLLLLL	000000	GGGGGG	EEEEEEEEE	VV	VV	EEEEEEEEE	NN	NN	TT	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

LL	IIIIII	SSSSSSSS
LL	IIIIII	SSSSSSSS
LL	II	SS
LL	II	SS
LL	II	SS
LL	II	SSSSSS
LL	II	SSSSSS
LL	II	SS
LL	II	SS
LL	II	SS
LLLLLLLLLL	IIIIII	SSSSSSSS
LLLLLLLLLL	IIIIII	SSSSSSSS

```
1 0001 0 MODULE OPC$LOGEVENT  (
2 0002 0   LANGUAGE (BLISS32),
3 0003 0   IDENT = 'V04-000'
4 0004 0   ) =
5 0005 0
6 0006 0 ***** 
7 0007 0 *
8 0008 0 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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26 0026 0 *
27 0027 0 ***** 
28 0028 0
29 0029 0 ++
30 0030 0   FACILITY:
31 0031 0
32 0032 0     OPCODE
33 0033 0
34 0034 0   ABSTRACT:
35 0035 0
36 0036 0     This module contains all the various and sundry general
37 0037 0     purpose utility routines used by OPCODE's request handlers.
38 0038 0
39 0039 0   Environment:
40 0040 0
41 0041 0     VAX/VMS operating system.
42 0042 0
43 0043 0   Author:
44 0044 0
45 0045 0     Steven T. Jeffreys
46 0046 0
47 0047 0   Creation date:
48 0048 0
49 0049 0     March 10, 1981
50 0050 0
51 0051 0   Revision history:
52 0052 0
53 0053 0     V03-005 CWH3169      CW Hobbs      5-May-1984
54 0054 0     Second pass for cluster-wide OPCODE:
55 0055 0     - Add an explanation to DUMP_LOG_FILE and WRITE_LOG_FILE
56 0056 0     messages so that users won't bother us unless something
57 0057 0     is really wrong.
```

```
58 0058 0
59 0059 0
60 0060 0
61 0061 0
62 0062 0
63 0063 0
64 0064 0
65 0065 0
66 0066 0
67 0067 0
68 0068 0
69 0069 0
70 0070 0
71 0071 0
72 0072 0
73 0073 0
74 0074 0
75 0075 0
76 0076 0
77 0077 0
78 0078 0
79 0079 1 BEGIN
80 0080 1
81 0081 1 LIBRARY 'SYSSLIBRARY:LIB.L32';
82 0082 1 LIBRARY 'LIBS:OPCOMLIB';
83 0083 1
84 0084 1 FORWARD ROUTINE
85 0085 1 DUMP_LOG_FILE, ! Print a formatted dump of a buffer
86 0086 1 LOG_MESSAGE, ! Write a message to a log file
87 0087 1 LOG_MESSAGE_PUT, ! $PUT a single record of a message
88 0088 1 LOGEVENT_FAQ_BUFFER, ! Local faq buffer routine
89 0089 1 WRITE_LOG_FILE; ! Write a string desc to a log file
90 0090 1
91 0091 1 BIND
92 0092 1 EXP1 = %ASCID 'OPCOM has noticed a condition which might be due to an internal error.',,
93 0093 1 EXP2 = %ASCID 'It might also be explained by normal events, especially if nodes have just',,
94 0094 1 EXP3 = %ASCID 'crashed or rebooted in a VAXcluster. Please bring this message to Digital';,
95 0095 1 EXP4 = %ASCID 'attention only if you are having problems with operator communications.';
96 0096 1
97 0097 1 MACRO
98 M 0098 1 PUT (DESC) = BEGIN
99 M 0099 1 BIND DSC = (DESC) : $bblock;
100 M 0100 1 LOGFILE_RAB [RAB$W_RSZ] = .DSC [DSC$W_LENGTH];
101 M 0101 1 LOGFILE_RAB [RAB$L_RBF] = .DSC [DSC$A_POINTER];
102 M 0102 1 $PUT (RAB = LOGFILE_PAB) ! Status is value of the block
103 M 0103 1 END %.
104 M 0104 1 PUT_EXPLANATION =
105 M 0105 1 BEGIN PUT (EXP1); PUT (EXP2); PUT (EXP3); PUT (EXP4); END
106 M 0106 1 %;
```

```
108 0107 1 GLOBAL ROUTINE DUMP_LOG_FILE (BUFF_DESC : $ref_bblock, ID_DESC : $ref_bblock) =
109 0108 1
110 0109 1 !++
111 0110 1 Functional description:
112 0111 1
113 0112 1 This routine will write a formatted hex dump to the operator log file.
114 0113 1
115 0114 1 ** This routine will be enhanced later to support multiple log files.
116 0115 1 **
117 0116 1
118 0117 1 Input:
119 0118 1
120 0119 1     BUFF_DESC      : Address of a string desc for buffer to be dumped
121 0120 1     ID_DESC       : Explanatory text for dump
122 0121 1
123 0122 1 Implicit Input:
124 0123 1
125 0124 1     None.
126 0125 1
127 0126 1 Output:
128 0127 1
129 0128 1     None.
130 0129 1
131 0130 1 Implicit output:
132 0131 1
133 0132 1     None.
134 0133 1
135 0134 1 Side effects:
136 0135 1
137 0136 1     None.
138 0137 1
139 0138 1 Routine value:
140 0139 1
141 0140 1     TRUE      : If success
142 0141 1     <anything else> : If the log attempt failed
143 0142 1 --+
144 0143 1
145 0144 2 BEGIN                                ! Start of DUMP_LOGFILE
146 0145 2
147 0146 2 EXTERNAL
148 0147 2     GLOBAL_STATUS    : BITVECTOR,          ! OPCODE global status flags
149 0148 2     LOGFILE_RAB     : $bblock,           ! RMS control structure
150 0149 2     LOGFILE_FAB     : $bblock;           ! RMS control structure
151 0150 2
152 0151 2 LOCAL
153 0152 2     BASE.
154 0153 2     LEFT.
155 0154 2     PTR.
156 0155 2     LCL_DESC : $ref_bblock,
157 0156 2     INTER : VECTOR [8, LONG],
158 0157 2     STATUS    : LONG;
159 0158 2
160 0159 2 ! See if logging is enabled.
161 0160 2
162 0161 3 IF (NOT .GLOBAL_STATUS [GBLSTS_K_LOGGING_ENABLED])
163 0162 3 OR (.GLOBAL_STATUS [GBLSTS_K_LOGFILE_CLOSED])
164 0163 2 THEN
```

```

: 165 0164 2 RETURN (TRUE);
: 166 0165 2
: 167 0166 2 | Format and print the message header
: 168 0167 2
: 169 0168 2 |INTER [0] = 0; ! A blank line
: 170 0169 2 |PUT (INTER);
: 171 0170 2 |PUT (LOGEVENT_FA0_BUFFER (%ASCID 'XXXXXXXXXX OPCODE !XD XXXXXXXXXXXX DUMP_LOG_FILE', 0));
: 172 0171 2 |PUT_EXPLANATION;
: 173 P 0172 2 |PUT_(LOGEVENT_FA0_BUFFER (%ASCID 'Buffer is !5UL (%X!XW) bytes -- !!AS'''
: 174 0173 2 | .BUFF_DESC [DSC$W_LENGTH], .BUFF_DESC [DSC$W_LENGTH], .ID_DESC));
: 175 0174 2
: 176 0175 2 | Format the buffer, 32 bytes at a time
: 177 0176 2
: 178 0177 2 |LEFT = .BUFF_DESC [DSC$W_LENGTH];
: 179 0178 2 |PTR = .BUFF_DESC [DSC$A_POINTER];
: 180 0179 2 |BASE = 0;
: 181 0180 2 |WHILE .LEFT GTR 0
: 182 0181 2 |DO
: 183 0182 3 | BEGIN
: 184 0183 3
: 185 0184 3 | Move the next chunk of data to the intermediate buffer
: 186 0185 3
: 187 P 0186 3 |CH$COPY (MINU (.LEFT, 32), .PTR, 0, 32, INTER [0]);
: 188 P 0187 3 |PUT (LOGEVENT_FA0_BUFFER (%ASCID '!8(9XL)!32AF !XW',
: 189 P 0188 3 | .INTER [7], .INTER [6], .INTER [5], .INTER [4],
: 190 P 0189 3 | .INTER [3], .INTER [2], .INTER [1], .INTER [0],
: 191 0190 3 | 32, INTER [0], .BASE));
: 192 0191 3
: 193 0192 3 | Move to the next chunk
: 194 0193 3
: 195 0194 3 |BASE = .BASE + 32;
: 196 0195 3 |PTR = .PTR + 32;
: 197 0196 3 |LEFT = .LEFT - 32;
: 198 0197 2 |END;
: 199 0198 2
: 200 0199 2 |$FLUSH (RAB = LOGFILE_RAB);
: 201 0200 2
: 202 0201 2 RETURN (TRUE);
: 203 0202 1 |END; ! End of DUMP_LOG_FILE

```

```

.TITLE OPC$LOGEVENT
.IDENT \V04-000\

```

```

.PSET SPLIT$,NOWRT,NOEXE,2

```

```

63 69 74 6F 6E 20 73 61 68 20 4D 4F 43 50 4F 00000 P.AAB: .ASCII \OPCODE has noticed a condition which might\ :
20 6E 6F 69 74 69 64 6E 6F 63 20 61 20 64 65 0000F
20 6E 61 20 6F 74 20 65 75 64 20 65 62 20 74 00028 .ASCII \t be due to an internal error.\<0>\<0>
2E 72 6F 72 72 65 20 6C 61 6E 72 65 74 6E 69 00037
20 6E 6F 69 61 6C 60 60 00 00 00046
20 6E 6F 69 61 6C 60 010E0046 00048 P.AAA: .LONG 17694790
20 6E 6F 69 61 6C 60 00000000 0004C .ADDRESS P.AAB
20 6E 6F 69 61 6C 60 00050 P.AAD: .ASCII \It might also be explained by normal eve\ :
20 79 62 20 64 65 6E 69 61 6C 70 78 65 20 65 0005F
20 79 62 20 64 65 6E 69 61 6C 70 78 65 20 65 0006E

```

79	6C	6C	61	69	63	65	70	73	65	20	2C	73	74	6E	00078	.ASCII \nts, especially if nodes have just\<0>	
20	65	76	61	68	20	73	65	64	6F	6E	20	74	73	75	6A	00087	.ASCII <0>
															00096	.LONG 17694794	
															00098	.ADDRESS P.AAD	
6F	62	65	72	20	72	6F	20	64	65	68	73	61	72	63	000A0	P.AAC:	
6C	63	58	41	56	20	61	20	6E	69	20	64	65	74	6F	000A4	P.AAF:	
															000B3	.ASCII \crashed or rebooted in a VAXcluster. Pl\	
73	69	68	74	20	67	6E	69	72	62	20	65	73	61	65	000C2	.ASCII \ease bring this message to Digital's\	
67	69	44	20	6F	74	20	65	67	61	73	73	65	60	20	000CC		
															000DB		
															000EA		
20	79	6C	6E	6F	20	6E	6F	69	74	6E	65	74	74	61	010E004C	P.AAE:	
69	76	61	68	20	65	72	61	20	75	6F	79	20	66	69	000F0	.LONG 17694796	
															000F4	.ADDRESS P.AAF	
															000F8	P.AAH:	
															00107	.ASCII \attention only if you are having problem\	
72	6F	74	61	72	65	70	6F	20	68	74	69	77	20	73	00116	.ASCII \r with operator communications.\<0>	
73	6E	6F	69	74	61	63	69	6E	75	6D	6D	6F	63	20	00120		
															0012F		
															0013E		
50	4F	20	25	25	25	25	25	25	25	25	25	25	25	25	010E0047	P.AAG:	
25	25	25	25	20	20	44	25	21	20	20	4D	4F	43	00140	.LONG 17694791		
															00144	.ADDRESS P.AAH	
															00148	P.AAJ:	
															00157	.ASCII \XXXXXXXXXX OPCOM !%D %XXXXXXXXXX DU\	
															00166		
															00170	.ASCII \MP LOG FILE\<0>	
															0017C	.LONG 17694777	
															00180	.ADDRESS P.AAJ	
20	4C	55	35	21	20	73	69	20	72	65	66	66	75	42	00184	P.AAL:	
20	20	73	65	74	79	62	20	29	57	58	21	58	25	28	00193	.ASCII \Buffer is !5UL (%X!XW) bytes -- !!AS"\<0>	
															001A2		
															001AA	.ASCII <0><0>	
															001AC	P.AAK:	
															001B0	.LONG 17694757	
															001B4	P.AAN:	
21	20	46	41	32	33	21	20	29	4C	58	39	28	38	21	010E0025	.ADDRESS P.AAL	
															001C3	.ASCII \!8(9XL) !32AF !XW\<0><0><0>	
															001C8	P.AAM:	
															001CC	.LONG 17694737	
															001D0	.ADDRESS P.AAN	

```
EXP1= P.AAA
EXP2= P.AAC
EXP3= P.AAE
EXP4= P.AAG
DSC= P.AAA
DSC= P.AAC
DSC= P.AAE
DSC= P.AAG
.EXTN GLOBAL STATUS, LOGFILE_RAB
.EXTN LOGFILE_FAB, SYSSPUT
.EXTN SYSSFLUSH
```

```
.PSELECT $CODES,NOWRT,2
.ENTRY DUMP LOG FILE, Save R2,R3,R4,R5,R6,R7,R8,- : 0107
        R9,RT0,RT1
MOVAB  P.AAI, R11
MOVAB  SYSSPUT, R10
```

03	0000G	59	0000G	CF	9E	0000E	MOVAB	LOGFILE_RAB, R9		
		5E		20	C2	00013	SUBL2	#32, SP		
				01	E0	00016	BBS	#1, GLOBAL_STATUS, 2\$	016	
F7	0000G	CF		00F9	31	0001C	'\$:	BRW	6\$	0162
				03	E0	0001F	2\$:	BBS	#3, GLOBAL_STATUS, 1\$	0168
				6E	D4	00025	CLRL	INTER	0169	
	22	A9		6E	B0	00027	MOVW	DSC, LOGFILE_RAB+34		
	28	A9		AE	D0	0002B	MOVL	DSC+4, LOGFILE_RAB+40		
				59	DD	00030	PUSHL	R9		
		6A		01	FB	00032	CALLS	#1, SYSSPUT	0170	
				7E	D4	00035	CLRL	-(SP)		
				5B	DD	00037	PUSHL	R11		
	0000V	CF		02	FB	00039	CALLS	#2, LOGEVENT_FAO_BUFFER		
	22	A9		60	B0	0003E	MOVW	(R0), LOGFILE_RAB+34		
	28	A9		04	A0	00042	MOVL	4(R0), LOGFILE_RAB+40		
		6A		59	DD	00047	PUSHL	R9		
	22	A9	FECC	01	FB	00049	CALLS	#1, SYSSPUT		
	28	A9	FED0	CB	B0	0004C	MOVW	DSC, LOGFILE_RAB+34		
				CB	DO	00052	MOVL	DSC+4, LOGFILE_RAB+40		
		6A		59	DD	00058	PUSHL	R9		
	22	A9	FF20	01	FB	0005A	CALLS	#1, SYSSPUT		
	28	A9	FF24	CB	B0	0005D	MOVW	DSC, LOGFILE_RAB+34		
				CB	DO	00063	MOVL	DSC+4, LOGFILE_RAB+40		
		6A		59	DD	00069	PUSHL	R9		
	22	A9	FF74	01	FB	0006B	CALLS	#1, SYSSPUT		
	28	A9	FF78	CB	B0	0006E	MOVW	DSC, LOGFILE_RAB+34		
				CB	DO	00074	MOVL	DSC+4, LOGFILE_RAB+40		
		6A		59	DD	0007A	PUSHL	R9		
	22	A9	C4	01	FB	0007C	CALLS	#1, SYSSPUT		
	28	A9	C8	AB	B0	0007F	MOVW	DSC, LOGFILE_RAB+34		
				AB	DO	00084	MOVL	DSC+4, LOGFILE_RAB+40		
		6A		59	DD	00089	PUSHL	R9		
				01	FB	0008B	CALLS	#1, SYSSPUT		
		6A		08	AC	DD	PUSHL	ID DESC	0173	
				04	AC	DO	MOVW	BUFF_DESC, R2		
		52		62	3C	00095	MOVZWL	(R2), -(SP)		
				7E	62	3C	MOVZWL	(R2), -(SP)		
				30	AB	9F	PUSHAB	P_AAK		
	0000V	CF		04	FB	0009E	CALLS	#4, LOGEVENT_FAO_BUFFER		
	22	A9		60	B0	000A3	MOVW	(R0), LOGFILE_RAB+34		
	28	A9		04	A0	000A7	MOVL	4(R0), LOGFILE_RAB+40		
		6A		59	DD	000AC	PUSHL	R9		
				01	FB	000AE	CALLS	#1, SYSSPUT		
		56		62	3C	000B1	MOVZWL	(R2), LEFT	0177	
		57		04	A2	DO	MOVL	4(R2), PTR	0178	
				58	D4	000B4	CLRL	BASE	0179	
				56	D5	000B8	TSTL	LEFT	0180	
				51	15	000BC	BLEQ	5\$		
		50		56	DO	000BE	MOVL	LEFT, R0	0186	
		20		50	D1	000C1	CMPL	R0, #32		
				03	1B	000C4	BLEQU	4\$		
		50		20	DO	000C6	MOVL	#32, R0		
	20	00	67	50	2C	000C9	4S:	MOVCS	R0, (PTR), #0, #32, INTER	
				6E	000CE		PUSHL	BASE	0190	
				04	58	DD	PUSHL	INTER		
					AE	9F	PUSHAB			
					20	DD	PUSHL	#32		

		0C	AE	DD	000D6	PUSHL	INTER		
		14	AE	DD	000D9	PUSHL	INTER+4		
		1C	AE	DD	000DC	PUSHL	INTER+8		
		24	AE	DD	000DF	PUSHL	INTER+12		
		2C	AE	DD	000E2	PUSHL	INTER+16		
		34	AE	DD	000E5	PUSHL	INTER+20		
		3C	AE	DD	000E8	PUSHL	INTER+24		
		44	AE	DD	000EB	PUSHL	INTER+28		
		4C	AB	9F	000EE	PUSHAB	P.AAM		
0000V	CF	0C	FB	000F1	CALLS	#12, LOGEVENT_FA0_BUFFER			
22	A9	60	B0	000F6	MOVW	(R0), LOGFILE_RAB+34			
28	A9	04	A0	DD	000FA	MOVL	4(R0), LOGFILE_RAB+40		
		59	DD	000FF	PUSHL	R9			
		6A	01	FB	00101	CALLS	#1, SYSSPUT		
		58	20	CO	00104	ADDL2	#32, BASE	0194	
		57	20	CO	00107	ADDL2	#32, PTR	0195	
		56	20	C2	0010A	SUBL2	#32, LEFT	0196	
			AB	11	0010D	BRB	3\$	0180	
00000000G	00	59	DD	0010F	5\$:	PUSHL	R9	0199	
		50	01	FB	00111	CALLS	#1, SYSSFLUSH	0201	
			01	DD	00118	6\$:	MOVL	#1, R0	0202
			04	0011B		RET			

: Routine size: 284 bytes. Routine Base: \$CODE\$ + 0000

```
205 0203 1 GLOBAL ROUTINE LOG_MESSAGE (RQCB) =  
206 0204 1  
207 0205 1 /**  
208 0206 1 Functional description:  
209 0207 1  
210 0208 1 This routine will write a message described by an MCB  
211 0209 1 to the operator log file.  
212 0210 1 **  
213 0211 1 ** This routine will be enhanced later to support multiple log files.  
214 0212 1 **  
215 0213 1  
216 0214 1 Input:  
217 0215 1  
218 0216 1 RQCB : Address of an RQCB data structure  
219 0217 1  
220 0218 1 Implicit Input:  
221 0219 1  
222 0220 1 RQCB [RQCB_L_MCB] points to a valid MCB.  
223 0221 1  
224 0222 1 Output:  
225 0223 1  
226 0224 1 None.  
227 0225 1  
228 0226 1 Implicit output:  
229 0227 1  
230 0228 1 None.  
231 0229 1  
232 0230 1 Side effects:  
233 0231 1  
234 0232 1 None.  
235 0233 1  
236 0234 1 Routine value:  
237 0235 1  
238 0236 1 TRUE : If success  
239 0237 1 <anything else> : If the log attempt failed  
240 0238 1 --  
241 0239 1  
242 0240 2 BEGIN ! Start of LOG_MESSAGE  
243 0241 2  
244 0242 2 MAP  
245 0243 2 RUCB : $ref_bblock;  
246 0244 2  
247 0245 2 EXTERNAL LITERAL  
248 0246 2 MCB_K_TYPE; ! MCB structure type  
249 0247 2  
250 0248 2 EXTERNAL  
251 0249 2 GLOBAL_STATUS : BITVECTOR; ! OPCODE global status flags  
252 0250 2  
253 0251 2 LOCAL  
254 0252 2 ADR : REF VECTOR [, BYTE], ! Adjusted address of string  
255 0253 2 LEN : LONG, ! Adjusted length of string  
256 0254 2 RECLEN : LONG, ! Adjusted length of single record  
257 0255 2 CHAR : BYTE,  
258 0256 2 BUF : VECTOR [OPCSK_MAXMESSAGE, BYTE],  
259 0257 2 BUFP : REF VECTOR [, BYTE],  
260 0258 2 MCB : $ref_bblock, ! MCB data structure  
261 0259 2 STATUS : LONG;
```

```
262 0260 2
263 0261 2 | Check for a valid MCB.
264 0262 2 | MCB = .RQCB [RQCB_L MCB];
265 0263 2 | IF (.MCB EQ 0) OR ?.MCB [MCB_B_TYPE] NEQ MCB_K_TYPE)
266 0264 2 | THEN
267 0265 2 |     RETURN (FALSE);
268 0266 2 |
269 0267 2 | See if logging is enabled.
270 0268 2 |
271 0269 2 | IF (NOT .GLOBAL STATUS [GBLSTS_K LOGGING ENABLED])
272 0270 2 | OR (.GLOBAL STATUS [GBLSTS_K LOGFILE-CLOSED])
273 0271 2 | OR ((.Sbblock [RQCB [RQCB_<OPTIONS>] OPC$V NOLOG]) AND
274 0272 2 |       (.Sbblock [RQCB [RQCB_L_PRIVMASK1], PRV$V_OPER]))
275 0273 2 | THEN
276 0274 2 |     RETURN (TRUE);
277 0275 2 |
278 0276 2 | Adjust the string. Remove any trailing control and space characters
279 0277 2 |
280 0278 2 | LEN = .MCB [MCB_L_TEXTLEN];
281 0279 2 | ADR = .MCB [MCB_L_TEXTPTR];
282 0280 2 | IF .LEN LEQ 0
283 0281 2 | THEN
284 0282 2 |     RETURN (TRUE);
285 0283 2 | DECR I FROM .LEN-1 TO 0           ! Remove all trailing control and space characters
286 0284 2 | DO
287 0285 2 |     SELECTONE .ADR [.I] OF
288 0286 2 |     SET
289 0287 2 |     [0 TO 32] : LEN = .LEN - 1;    ! Bad one, remove it
290 0288 2 |     [OTHERWISE] : EXITLOOP;       ! Good one, we are done looking
291 0289 2 |     TES:
292 0290 2 |     IF .LEN LEQ 0               ! If we got rid of the whole string, we are done
293 0291 2 |     THEN
294 0292 2 |     RETURN (TRUE);
295 0293 2 |
296 0294 2 |
297 0295 2 |
298 0296 2 | Now get ready to filter the string. We will copy it to a local buffer, making some changes.
299 0297 2 | Ignore all control characters except tab and line-feed. Pass tab through, if see a line-feed
300 0298 2 | then write the record found up to the line-feed. Do not print zero-length lines.
301 0299 2 |
302 0300 2 | STATUS = LOG_MESSAGE_PUT (0, BUF);      ! Put a single blank line before the message
303 0301 2 | RECLEN = 0;
304 0302 2 | BUFP = BUF;
305 0303 2 | WHILE .LEN GTR 0
306 0304 2 | DO
307 0305 2 |     BEGIN
308 0306 2 |     CHAR = CH$RCHAR_A (ADR);
309 0307 2 |     SELECTONE .CHAR OF
310 0308 2 |     SET
311 0309 2 |
312 0310 2 |     Line feed, print the old record and start a new one
313 0311 2 |
314 0312 2 |     [10] :
315 0313 2 |     BEGIN
316 0314 2 |     IF .RECLEN GTR 0
317 0315 2 |     THEN
318 0316 2 |         STATUS = LOG_MESSAGE_PUT (.RECLEN, BUF);
RECLEN = 0;
```

```

319 0317 4
320 0318 3
321 0319 3
322 0320 3
323 0321 3
324 0322 3
325 0323 3
326 0324 3
327 0325 3
328 0326 4
329 0327 4
330 0328 4
331 0329 3
332 0330 3
333 0331 3
334 0332 2
335 0333 2
336 0334 2
337 0335 2
338 0336 2
339 0337 2
340 0338 2
341 0339 2
342 0340 2
343 0341 1

        BUFP = BUF;
        END;

        Misc control char, ignore
        [0 TO 8, 11 TO 31] :   ;

        Valid char, pass it to the new buffer
        [OTHERWISE] :           BEGIN
                                RECLEN = .RECLEN + 1;
                                CH$WCHAR_A (.CHAR, BUFP);
                                END;

        TES;
        LEN = .LEN - 1;
        END;

        If we have some data in the new buffer, print it
        IF .RECLEN GTR 0
        THEN
            STATUS = LOG_MESSAGE_PUT (.RECLEN, BUF);
        RETURN (.STATUS);
    END;

```

! End of LOG\_MESSAGE

						.EXTRN MCB_K_TYPE		
00000000G	8F	0A	A0	08	0000V	00FC 00000	.ENTRY LOG_MESSAGE, Save R2,R3,R4,R5,R6,R7	0203
					5E	F800 CE 9E 00002	MOVAB LOG_MESSAGE_PUT, R7	
					51	04 AC D0 00007	MOVAB -2048(SP), SP	0264
					50	6C A1 D0 00010	MOVL RQCB, R1	
						03 12 00014	MOVL 108(R1), MCB	0265
							BNEQ 2\$	
							BRW 15\$	
							CMPZV #0, #8, 10(MCB), #MCB_K_TYPE	
							BNEQ 1\$	
					32	0000G CF	BBC #1, GLOBAL_STATUS, 7\$	0271
					2C	0000G CF	BBS #3, GLOBAL_STATUS, 7\$	0272
					23	05 54	BLBC 84(R1), 3\$	0273
					32	A1 54	BBS #2, 50(R1), 7\$	0274
					52	30 54	MOVL 48(MCB), LEN	0280
					56	34 54	MOVL 52(MCB), ADR	0281
							TSTL LEN	0282
							BLEQ 7\$	
					50	52 D0 00046	MOVL LEN, I	0287
						08 11 00049	BRB 5\$	
					51	6046 9A 0004B	MOVZBL (I)[ADR], R1	
					20	51 91 0004F	CMPB R1, #32	0289
						05 1A 00052	BGTRU 6\$	
						52 D7 00054	DECL LEN	
					F2	50 F4 00056	S0BGEQ I, 4\$	0287
						52 D5 00059	TSTL LEN	0292
						04 14 00058	BGTR 8\$	
					50	01 D0 0005D	MOVL #1, R0	0294

	04	00060		RET			
67	5E	00061	8\$:	PUSHL	SP	0300	
	7E	D4	00063	CLRL	-(SP)		
	02	FB	00065	CALLS	#2, LOG_MESSAGE_PUT		
55	53	D4	00068	CLRL	RECLEN	0301	
	6E	9E	0006A	MOVAB	BUF, BUFP	0302	
	52	D5	0006D	9\$:	TSTL	LEN	0303
	32	15	0006F	BLEQ	14\$		
54	86	90	00071	MOVB	(ADR)+, CHAR	0306	
0A	54	91	00074	CMPB	CHAR, #10	0312	
	12	12	00077	BNEQ	11\$		
	53	D5	00079	TSTL	RECLEN	0313	
	07	15	0007B	BLEQ	10\$		
67	4008	8F	BB	PUSHR	#^M<R3,SP>	0315	
	02	F8	00081	CALLS	#2, LOG_MESSAGE_PUT		
55	53	D4	00084	10\$:	CLRL	RECLEN	0316
	6E	9E	00086	MOVAB	BUF, BUFP	0317	
08	14	11	00089	BRB	13\$	0307	
08	54	91	0008B	11\$:	CMPB	CHAR, #8	0322
	0F	1B	0008E	BLEQU	13\$		
08	54	91	00090	CMPB	CHAR, #11		
1F	05	1F	00093	BLSSU	12\$		
	54	91	00095	CMPB	CHAR, #31		
	05	1B	00098	BLEQU	13\$		
85	53	D6	0009A	12\$:	INCL	RECLEN	0327
	54	90	0009C	MOVAB	CHAR, (BUFP)+	0328	
	52	D7	0009F	13\$:	DECL	LEN	0331
	CA	11	000A1	BRB	9\$	0303	
	53	D5	000A3	14\$:	TSTL	RECLEN	0336
	0A	15	000A5	BLEQ	16\$		
67	4008	8F	BB	PUSHR	#^M<R3,SP>	0338	
	02	FB	000AB	CALLS	#2, LOG_MESSAGE_PUT		
	04	000AE		RET		0340	
	50	D4	000AF	15\$:	CLRL	RO	0341
	04	000B1	16\$:	RET			

; Routine Size: 178 bytes. Routine Base: \$CODES + 011C

```
345 0342 1 GLOBAL ROUTINE LOG_MESSAGE_PUT (LEN, ADR) =  
346 0343 1  
347 0344 1 !++  
348 0345 1 Functional description:  
349 0346 1  
350 0347 1 Place the record in the log file.  
351 0348 1 **  
352 0349 1 ** This routine will be enhanced later to support multiple log files.  
353 0350 1 **  
354 0351 1  
355 0352 1 Input:  
356 0353 1  
357 0354 1 LEN - Length of record  
358 0355 1 ADR - Address of record  
359 0356 1  
360 0357 1 Implicit Input:  
361 0358 1  
362 0359 1 None.  
363 0360 1  
364 0361 1 Output:  
365 0362 1  
366 0363 1 None.  
367 0364 1  
368 0365 1 Implicit output:  
369 0366 1  
370 0367 1 None.  
371 0368 1  
372 0369 1 Side effects:  
373 0370 1  
374 0371 1 None.  
375 0372 1  
376 0373 1 Routine value:  
377 0374 1  
378 0375 1 TRUE : If success  
379 0376 1 <anything else> : If the log attempt failed  
380 0377 1 !--  
381 0378 1  
382 0379 2 BEGIN : Start of LOG_MESSAGE_PUT  
383 0380 2  
384 0381 2 EXTERNAL  
385 0382 2 GLOBAL_STATUS : BITVECTOR, : OPCODE global status flags  
386 0383 2 LOGFILE_RAB : $bblock, : RMS control structure  
387 0384 2 LOGFILE_FAB : $bblock; : RMS control structure  
388 0385 2  
389 0386 2 LOCAL  
390 0387 2 MESSAGE : LONG, : Error message code  
391 0388 2 STATUS : LONG;  
392 0389 2  
393 0390 2 Write the message to the logfile.  
394 0391 2  
395 0392 2 LOGFILE_RAB [RAB$W_RSZ] = .LEN;  
396 0393 2 LOGFILE_RAB [RAB$L_RBF] = .ADR;  
397 0394 2 GLOBAL_STATUS [GBLSTS_K_FLUSH_PENDING] = TRUE;  
398 0395 3 IF NOT (STATUS = $PUT (RAB = LOGFILE_RAB))  
399 0396 2 THEN  
400 0397 3 BEGIN  
401 0398 3 !
```

```

: 402 0399 3 ! The log attempt failed. Complain if appropriate.
: 403 0400 3
: 404 0401 3 IF NOT .GLOBAL_STATUS [GBLSTS_K_LAST_LOG_FAILED]
: 405 0402 3 THEN
: 406 0403 4 BEGIN
: 407 0404 4
: 408 0405 4 Complain to the appropriate operators.
: 409 0406 4
: 410 0407 4 MESSAGE = OPC$_LOGFAIL;
: 411 0408 4 *** the remainder will be supplied later ***
: 412 0409 3 END;
: 413 0410 3 GLOBAL_STATUS [GBLSTS_K_LAST_LOG_FAILED] = TRUE;
: 414 0411 2 END;
: 415 0412 2
: 416 0413 2 RETURN (.STATUS);
: 417 0414 2
: 418 0415 1 END; ! End of LOG_MESSAGE_PUT

```

			0004	00000	.ENTRY	LOG MESSAGE PUT, Save R2	0342
	0000G	52	0000G	CF 9E 00002	MOVAB	GLOBAL_STATUS, R2	0392
	0000G	CF	04	AC B0 00007	MOVW	LEN, LOGFILE_RAB+34	0393
	0000G	CF	08	AC D0 0000D	MOVL	ADR, LOGFILE_RAB+40	0394
		62	80	8F 88 00013	BISB2	#128, GLOBAL_STATUS	0395
			0000G	CF 9F 00017	PUSHAB	LOGFILE_RAB	
	00000000G	00	01	FB 0001B	CALLS	#1, SYS\$PUT	
		0E	50	E8 00022	BLBS	STATUS, 2\$	
07		62	02	E0 00025	BBS	#2, GLOBAL_STATUS, 1\$	0401
		51 00058034	8F	D0 00029	MOVL	#360500, MESSAGE	0407
		62	04	88 00030 1\$:	BISB2	#4, GLOBAL_STATUS	0410
			04 00033 2\$:	RET		0415	

: Routine Size: 52 bytes, Routine Base: \$CODE\$ + 01CE

```
420 0416 1 ROUTINE LOGEVENT_FAO_BUFFER (CTRSTR : REF VECTOR[2], ARGS : VECTOR [4]) =      %SBTTL 'LOGEVENT_FAO_BUFFER'
421 0417 2 BEGIN
422 0418 2 ++
423 0419 2
424 0420 2 FUNCTIONAL DESCRIPTION:
425 0421 2
426 0422 2 This routine passes an ascii string through the FAO system service with any number of specified para
427 0423 2
428 0424 2 INPUTS:
429 0425 2
430 0426 2     ctrstr  Address of FAO control string descriptor
431 0427 2     args    Any number of additional arguments
432 0428 2
433 0429 2 IMPLICIT INPUTS:
434 0430 2
435 0431 2     none
436 0432 2
437 0433 2 OUTPUTS:
438 0434 2
439 0435 2     none
440 0436 2
441 0437 2 IMPLICIT OUTPUTS:
442 0438 2
443 0439 2     none
444 0440 2
445 0441 2 ROUTINE VALUE:
446 0442 2
447 0443 2     Address of formatted descriptor
448 0444 2
449 0445 2 SIDE EFFECTS:
450 0446 2
451 0447 2     none
452 0448 2 --
453 0449 2
454 0450 2 OWN
455 0451 2     desc : VECTOR [2, LONG],
456 0452 2     faobuf : VECTOR [512, BYTE]
457 0453 2 ;
458 0454 2
459 0455 2     desc [0] = 512;                      ! Set up result descriptor
460 0456 2     desc [1] = faobuf;
461 0457 2
462 0458 2     $faol (ctrstr=.ctrstr, outlen=desc, outbuf=desc, prmlst=args);
463 0459 2
464 0460 2     RETURN desc;
465 0461 1 END;
```

```
.PSECT $0WN$,NOEXE,2
00000 DESC: .BLKB 8
00008 FAOBUF: .BLKB 512
.EXTRN SYSSFAOL
.PSECT $CODE$,NOWRT,2
```

0004 0000C LOGEVENT\_FA0\_BUFFER:  
04 52 0000' CF 9E 00002 WORD Save R2 : 0416  
04 62 0200 8F 3C 00007 MOVAB DESC, R2 :  
04 A2 08 A2 9E 0000C MOVZWL #512, DESC : 0455  
08 AC 9F 00011 MOVAB FAOBUF, DESC+4 : 0456  
08 52 DD 00014 PUSHAB ARGS : 0458  
00000000G 00 04 AC DD 00016 PUSHL R2 :  
04 50 62 9E 0001B PUSHL R2 :  
04 04 00022 CALLS #4, SYSSFAOL :  
04 04 00025 MOVAB DESC, R0 : 0460  
RET : 0461

; Routine Size: 38 bytes,    Routine Base: \$CODE\$ + 0202

```
467 0462 1 GLOBAL ROUTINE WRITE_LOG_FILE (DESC : $ref_bblock) =  
468 0463 1  
469 0464 1 !++  
470 0465 1 Functional description:  
471 0466 1  
472 0467 1 This routine will write a message described by simple string desc  
473 0468 1 to the operator log file.  
474 0469 1 **  
475 0470 1 ** This routine will be enhanced later to support mutliple log files.  
476 0471 1 **  
477 0472 1  
478 0473 1 Input:  
479 0474 1  
480 0475 1 DESC : Address of a string desc  
481 0476 1  
482 0477 1 Implicit Input:  
483 0478 1  
484 0479 1 RQCB [RQCB_L_MCB] points to a valid MCB.  
485 0480 1  
486 0481 1 Output:  
487 0482 1  
488 0483 1 None.  
489 0484 1  
490 0485 1 Implicit output:  
491 0486 1  
492 0487 1 None.  
493 0488 1  
494 0489 1 Side effects:  
495 0490 1  
496 0491 1 None.  
497 0492 1  
498 0493 1 Routine value:  
499 0494 1  
500 0495 1 TRUE : If success  
501 0496 1 <anything else> : If the log attempt failed  
502 0497 1 --  
503 0498 1  
504 0499 2 BEGIN ! Start of WRITE_LOG_FILE  
505 0500 2  
506 0501 2 EXTERNAL  
507 0502 2 GLOBAL_STATUS : BITVECTOR, ! OPCODE global status flags  
508 0503 2 LOGFILE_RAB : $bblock, ! RMS control structure  
509 0504 2 LOGFILE_FAB : $bblock; . RMS control structure  
510 0505 2  
511 0506 2 LOCAL  
512 0507 2 NULLDESC : LONG; ! Only need length word  
513 0508 2  
514 0509 2  
515 0510 2 See if logging is enabled.  
516 0511 2  
517 0512 3 IF (NOT .GLOBAL_STATUS [GBLSTS_K_LOGGING_ENABLED])  
518 0513 3 OR (.GLOBAL_STATUS [GBLSTS_K_LOGFILE_CLOSED])  
519 0514 2 THEN  
520 0515 2 RETURN (TRUE);  
521 0516 2  
522 0517 2 Format and print the message header  
523 0518 2
```

```

: 524 0519 2 NULLDESC = 0;                                ! A blank line
: 525 0520 2 PUT (NULLDESC);
: 526 0521 2 PUT (LOGEVENT_FA0_BUFFER (%ASCID 'XXXXXXXXXX 0PCOM !%D XXXXXXXXXXXX WRITE_LOG_FILE', 0));
: 527 0522 2 PUT_EXPLANATION;
: 528 0523 2 PUT (LOGEVENT_FA0_BUFFER (%ASCID "'!AS'", .DFSC));
: 529 0524 2 $FLUSH (RAB = LOGFILE_RAB);
: 530 0525
: 531 0526 2 RETURN (TRUE);
: 532 0527 1 END;                                         ! End of WRITE_LOG_FILE

```

```

50 4F 20 20 25 25 25 25 25 25 25 25 25 25 25 25 001D0 P.AAP: .PSECT $PLIT$,NOWRT,NOEXE,2
25 25 25 25 25 20 44 25 25 21 20 20 20 4D 4F 43 001DF .ASCII \XXXXXXXXXX 0PCOM !%D XXXXXXXXXXXX WR\ :
52 57 20 20 25 25 25 25 25 25 25 25 25 25 25 25 001EE .LONG 17694772
45 4C 49 46 5F 47 4F 4C 5F 45 54 49 001F8 .ASCII \ITE LOGFILE\
010E0034 00204 P.AAO: .LONG 17694772
00000000' 00208 .ADDRESS P.AAP
00 00 00 22 53 41 21 22 0020C P.AAR: .ASCII '!AS'\<0><0><0>
010E0005 00214 F.AAQ: .LONG 17694725
00000000' 00218 .ADDRESS P.AAR

DSC=          P.AAA
DSC=          P.AAC
DSC=          P.AAE
DSC=          P.AAG

```

```

.ENTRY WRITE_LOG_FILE, Save R2,R3          0462
MOVAB SYSSPUT, R3
MOVAB LOGFILE_RAB, R2
SUBL2 #4, SP
BBS #1, GLOBAL_STATUS, 2$                0512
#3, GLOBAL_STATUS, 1$                    0513
CLRL NULLDESC                           0519
MOVW DSC, LOGFILE_RAB+34                 0520
MOVL DSC+4, LOGFILE_RAB+40
PUSHL R2
CALLS #1, SYSSPUT
CLRL -(SP)
PUSHAB P.AAO
CALLS #2, LOGEVENT_FA0_BUFFER
MOVW (R0), LOGFILE_RAB+34
MOVL 4(R0), LOGFILE_RAB+40
PUSHL R2
CALLS #1, SYSSPUT
MOVW DSC, LOGFILE_RAB+34
MOVL DSC+4, LOGFILE_RAB+40
PUSHL R2
CALLS #1, SYSSPUT
MOVW DSC, LOGFILE_RAB+34
MOVL DSC+4, LOGFILE_RAB+40

```

22	63	52	DD 00064	PUSHL R2	
28	A2	01	FB 00066	CALLS #1, SYSSPUT	
		CF	BO 00069	MOVW DSC, LOGFILE_RAB+34	
		CF	DO 0006F	MOVL DSC+4, LOGFILE_RAB+40	
22	63	52	DD 00075	PUSHL R2	
28	A2	01	FB 00077	CALLS #1, SYSSPUT	
		CF	BO 0007A	MOVW DSC, LOGFILE_RAB+34	
		CF	DO 00080	MOVL DSC+4, LOGFILE_RAB+40	
	63	52	DD 00086	PUSHL R2	
		01	FB 00088	CALLS #1, SYSSPUT	
		AC	DD 0008B	PUSHL DE\$C	
		CF	9F 0008E	PUSHAB P.AAQ	
FF43	CF	02	FB 00092	CALLS #2, LOGEVENT_FA0_BUFFER	
22	A2	60	BO 00097	MOVW (R0), LOGFILE_RAB+34	
28	A2	04	AO 0009B	MOVL 4(R0), LOGFILE_RAB+40	
	63	52	DD 000A0	PUSHL R2	
		01	FB 000A2	CALLS #1, SYSSPUT	
		52	DD 000A5	PUSHL R2	
00000000G	00	01	FB 000A7	CALLS #1, SYSSFLUSH	
	50	01	DO 000AE	MOVL #1, R0	
		04	000B1	RET	

: Routine Size: 178 bytes, Routine Base: \$CODE\$ + 0228

```
: 533 0528 1
: 534 0529 1 END
: 535 0530 0 ELUDOM
```

! End of LOGEVENT

## PSECT SUMMARY

Name	Bytes	Attributes
\$SPLIT\$	540	NOVEC,NOWRT, RD, NOEXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2)
\$CODE\$	730	NOVEC,NOWRT, RD, EXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2)
\$OWNS	520	NOVEC, WRT, RD, NOEXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2)

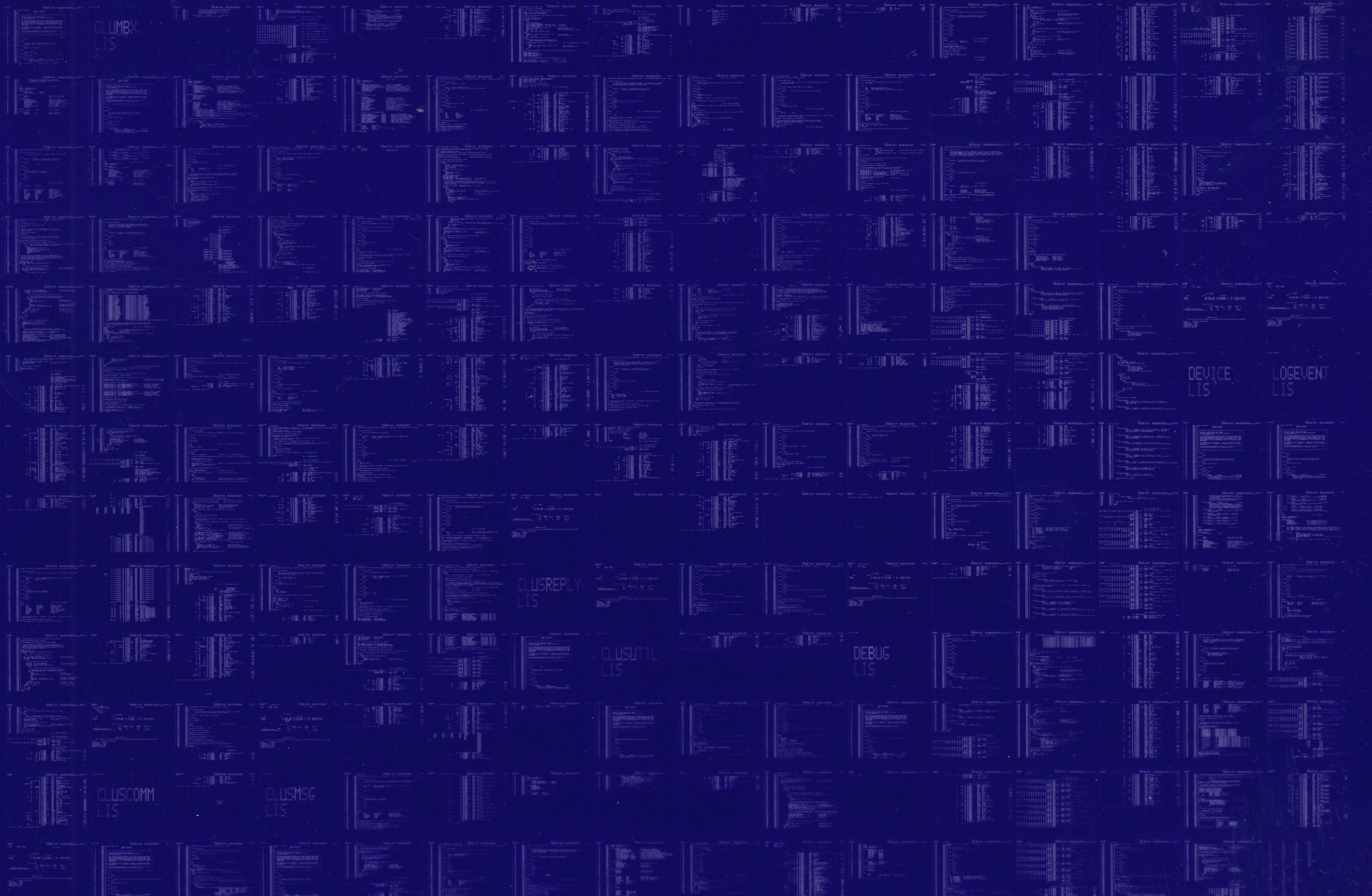
## Library Statistics

File	-----	Symbols	-----	Pages	Processing
	Total	Loaded	Percent	Mapped	Time
-\$255\$DUA28:[SYSLIB]LIB.L32;1	18619	13	0	1000	00:01.8
-\$255\$DUA28:[OPCOM.OBJ]OPCOMLIB.L32;1	633	15	2	43	00:00.8

;  
COMMAND QUALIFIERS  
;  
BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS\$:LOGEVENT/OBJ=OBJ\$:LOGEVENT MSRC\$:LOGEVENT/UPDATE=(ENH\$:LOGEVENT)  
;  
Size: 730 code + 1060 data bytes  
;  
Run Time: 00:18.2  
;  
Elapsed Time: 01:01.1  
;  
Lines/CPU Min: 1751  
;  
Lexemes/CPU-Min: 23511  
;  
Memory Used: 135 pages  
;  
Compilation Complete

0289 AH-BT13A-SE  
VAX/VMS V4.0

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VAX/VMS V4.0

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LOGFILE  
LIS

OPCOMDEF  
LIS

OPCOMDATA  
LIS

OPCOMINI  
LIS

OPCOMLIB  
LIS

OPCODEFTMP  
LIS

OPCCRASH  
LIS

OPCOMMMAIN  
LIS

OPCOMOLD  
LIS

OPCOMRPLY  
LIS

OPCOMROST  
LIS

OPCOMUTIL  
LIS

OPERUTIL  
LIS